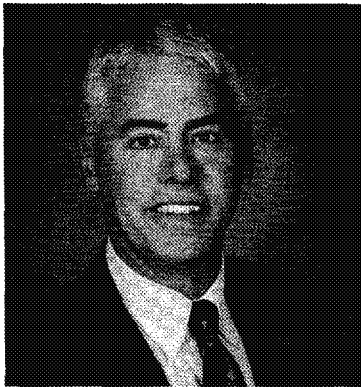


TO: Administrator Pruitt
FROM:
CC:
DATE: May 18, 2017
RE: Meeting with Jerry Jung



BIOGRAPHY: Jerry Jung, former owner of Michigan CAT and longtime environmentalist. Jung, chairman of the Michigan Colleges Alliance, recently launched RethinkEthanol.com — a website calling for the end of the federally mandated and subsidized corn-based ethanol industry. Jung made his wealth partly from selling the family business, which sold, rented and serviced heavy equipment, primarily Caterpillar brand, in 2011 to Indianapolis-based MacAllister Machinery Co. Inc. for an undisclosed sum. Jung's grandfather, Jack Frost, founded the company in 1944 as Michigan Tractor and Machinery. The Renewable Fuel Standard, enacted in 2005 under the Energy Policy Act, called for

increased use of biofuels in traditional gasoline. Currently, most gasoline in the U.S. contains 10 percent ethanol.

QUOTES: "The current ethanol policy is sold as a green, renewable and energy-independent resource. It's a big farce. (The mandate) is a very environmentally damaging policy."

"Ethanol production requires 35 million acres to farm; that's more than the size of Michigan," "The amount of pollution this produces are staggering."

TOPICS FOR DISCUSSION:

Deliberative Process / Ex. 5

It's time to Rethink Ethanol Mandates

This year the EPA has mandated that 15 billion gallons of ethanol be added to gasoline. As a result, most gasoline contains about 10% ethanol. Initially, automotive manufacturers saw the mandate as a cheap way to increase octane ratings and corn growers thought it would be a boon to the agricultural economy. Casual observers and even some conservation organizations thought that it was a renewable source of energy that would help the environment and reduce harmful emissions. Others saw it as a way to reduce dependence on foreign oil.

After eight years of dramatically increasing mandates the results are in and it is apparent that none of these goals have been met—in fact the opposite is true. Due to an arcane and fraud prone ethanol credit trading scheme the price of higher octane gasoline has skyrocketed relative to lower grades; the farm economy continues its decline; finite resources such as phosphorus and subterranean aquifers are being depleted; wildlife and biodiversity are being threatened; harmful emissions have doubled; and the mandate has had no impact on reducing use of fossil fuels.

How can this be? The answer is simple—it takes as much fossil fuel to produce ethanol from corn as it yields. A University of Cornell study estimates that it takes 40% more energy to produce corn ethanol than it yields. The actual distillation of corn into ethanol consumes about 28% as much energy as it produces, yet when all the inputs required to grow corn such as the production of herbicides, insecticides, fertilizer, and the fuel for tractors and transportation are factored in, the equation changes. Even the U.S.D.A., a misguided proponent of ethanol production, estimates that the energy output only slightly exceeds the inputs. The agency points out that by-products from the distillation process can be fed to livestock, but studies such as one published by the University of Nebraska point out that the practice of feeding distillates to cattle shortens the shelf life of their meat. Other studies indicate that the practice alters the flavor of meat and can make livestock sick.

The price of corn shot up to \$8/bushel when the mandate was dramatically ramped up nine years ago. As a result, there were food riots in some countries where corn is a dietary staple. Since then, the amount of acreage devoted to growing corn has increased to over 35 million acres in the U.S. (larger than most states) and the price is back where it started. Unfortunately, much of this land is ecologically sensitive. The National Wildlife Federation estimates that 10 million acres in the U.S. have been converted from Conservation Reserve Programs, virgin prairie, woodlands and wetlands in the U.S. to grow corn over the last ten years. The careful reader might question how 35 million acres are growing corn for ethanol, but "only" ten million new acres have been converted to agricultural use in the U.S. Much of this acreage used to grow soybeans for export. Typically farmers would rotate between corn and soybeans, but now many grow corn year after year. South America has filled the void with the result that Brazil now exports more soybeans than the U.S. with the concomitant destruction of forest and grasslands in that country, not to mention an increased trade deficit in this country.

A recent study by a Conservation Political Action Committee panel concludes that the farm economy continues its decline despite and perhaps because of ethanol mandates. Ethanol is a low value commodity. A bushel of corn will produce 2.8 gallons of ethanol worth about \$4.50. The same corn fed to poultry produces about \$20 of value and to cattle about \$50 of value. It is this value added chain that creates rural employment and economic diversity. It is not uncommon to see hand painted signs in Iowa that read "Family Farms, not Factory Farms." A poll conducted by a leading conservation organization shows surprising opposition to ethanol mandates in rural areas. It is no wonder, since these are the

populations most affected in terms of water quality and outdoor recreational opportunities. These are the families that must confront chemical pollution and that are at a competitive disadvantage against huge absentee landowners when it comes to low value commodity products. Look no further than the City of Des Moines water authority's lawsuit against upstream agricultural districts. Look no further than the City of Toledo that shut down water supplies to hundreds of thousands of residents because of nutrient fed toxic algae. Look no further than the just released USGS study that confirmed deadly "neo-nic" insecticides in Iowa drinking water. Perhaps it is no accident that Senator Cruz who has never supported ethanol mandates or costly agricultural subsidies won the Republican primary in Iowa.

There are many other reasons to discontinue ethanol mandates. Dozens of diverse stakeholder groups representing fiscal conservatives; small and marine engine users and manufacturers; food producers and food justice groups; charter boat captains, The Sierra Club, The National Wildlife Federation, the Audubon Society and even the American Petroleum Institute are opposed to subsidized and mandated corn ethanol production.

Ironic, is it not, that a mandate sold to Congress and the public as "green" is arguably the biggest polluter of air and water in the U.S.? The policy has also been a significant driver of what has aptly been termed the Sixth Extinction of biodiversity. Fortunately, legislation has been introduced in the House of Representatives that would cap the ethanol content of gasoline at 10% and reduce mandates over time. Urge your Congressman to support this legislation.

The EPA can also play a vital role as they work with automobile companies implementing improved fuel economy standards. The first step in this regard would be to eliminate artificial incentives to produce ethanol. Currently the EPA gives CAFE mileage bonuses to gas guzzlers if they can consume gasoline that is up to 85% ethanol. Credits are also provided to compensate for the reduced energy content of ethanol as compared to pure gasoline. Given the environmental destruction and excessive use of fossil fuels consumed in the production of ethanol, these credits should realistically be debits. It is imperative that the EPA consider the overall economic and environmental impact of their policies and not focus solely on a single aspect of the overall picture.

Jerry Jung is a retired businessman and conservationist who became concerned when Monarch Butterflies that migrate from Mexico stopped arriving at his farm in central Michigan. The pollinator's population has declined by 95% since the ramp-up in ethanol mandates.